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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PEREZ, JULIO R

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/869,126

Applicant(s)

RITTER, RUDOLF

Examiner

Julio R Perez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/8/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan et al. (GB2322998A) in view of Bullock et al. (6243571).

Regarding claims 1 and 16, Cowan et al. disclose a communications system and method, which comprise a multiplicity of mobile devices (page. 1, lines 16-17; page. 2, lines 1-2, multiple subscribers are supported), to which an identification module is connected in each case, in which identification modules a user identification of the user of the respective mobile device is stored in each case (page 5, lines 11-15, the portable stations provide means for smart card (SIM), which identifies the subscriber), which communications system comprises at least one visitor location register, to which visitor location register user identifications of the users are transmitted each by means of one of the mobile devices and are stored there (page 5, lines 15-20; page 6, lines 1-19, the system carries a VLR; information related to mobiles is passed on to the VLR for storage), and which communications system comprises at least one home location register, in which the user identifications are each linked to a call number and to further user data (page 4, lines 10-15, the HLR holds the terminal phone number or MIN and other data such as its IMSI), which user data comprise location information for a

respective user, the location information being transmitted from a visitor location register to the home location register of a user (page 6, lines 12- 22; page 7, lines 1-14, information about the mobile locations is shared between the VLR and the HLR).

Cowan et al. do not explicitly teach connecting modules, by means of which connecting modules one of the mobile devices in each case is connectible by a user to a lower voltage grid, the connecting modules each comprising a connecting plug for connection to the low voltage grid, by means of which connecting plugs the connecting modules are each, connectible to the low voltage grid via outlets of the low voltage grid, and the connecting modules comprising an interface module for connection to the respective mobile device, and the connecting modules each comprise a suitable power line communications module by means of which the respective mobile device is able to communicate via the low voltage grid with other units which are connected to the low voltage, grid via a power line communications module.

However, the preceding limitation is known in the art of power line communications and wireless technology.

Bullock et al. teach a method and system for receiving, converting, and distributing of wireless communications signals received from wireless communications devices over AC power lines (col. 3, lines 22-47; col. 4, lines 4-44).

Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to improve upon the communication system as taught by Cowan et al. by implementing the system with RF interface, conversion, and power line communicator units as taught by Bullock et al. because it would provide the

communication system of Cowan et al. with means to communicate to external wireless devices via power lines.

Regarding claims 2 and 17, Cowan et al. disclose the communications system, wherein it comprises at least one visitor location register which is connected to at least one low voltage grid via the power line communications module, and wherein user identifications are transmittable to this power supply network visitor location register via the low voltage grid by respective mobile devices (page 5, lines 15-20; page 6, lines 1-19, the system carries a VLR; information related to mobiles is passed on to the VLR for storage).

Regarding claims 3 and 18, Cowan et al. disclose the communications system, wherein the power supply network visitor location register comprises a table in which address data relating to connecting modules are linked to associated user identifications and are stored (page 5, line 20; page 6, lines 1-17, the VLR is able to store mobile device information).

Regarding claims 4 and 19 Cowan et al. disclose the communications system, wherein the power supply network visitor location register transmits to the home location register of a user a roaming number relating to the mobile device of this user, and wherein the roaming numbers are additionally linked in the table with associated user identifications and are stored (page 13, lines 1-21; page 14, lines 1-10, it is inherent as evidenced by the fact that one of ordinary skill in the art would have recognized that the visitor location register communicates with the home location register roaming into another area; hence providing information to the home location register including a

temporary number such as the roaming number to be able to communicate within a foreign system, for instance) .

Regarding claims 5 and 20 Cowan et al. disclose the communications system, wherein at least certain of the roaming numbers comprise address data relating to a connecting module (page 15, lines 1-12, the home location register carries the necessary information about mobile devices to be provided).

Regarding claims 6 and 21 Cowan et al. disclose the communications system according to claim 2, wherein at least certain pieces of the location information comprise address data relating to the power supply network visitor location register (page 7, lines 15-20; page 8, lines 1-20, many data related to VLR such the phone numbers of visiting mobile devices and locations of VLRs are comprised between this database and the HLR, which in turn allow roaming).

Regarding claims 7 and 22 Cowan et al. disclose the communications system, wherein the communications system comprises a connecting network via which the power supply network visitor location register is able to communicate with at least one home location register and/or at least one mobile switching center (page 8, lines 14-19, communication is entailed between Home Location Register and Visitor Location Register and MSCs).

Regarding claims 8 and 23 Cowan et al. disclose the communications system, wherein the connecting network comprises a SS7 signaling system, or is the Internet or an intranet (page 14, lines 3-10; page 19, lines 8-21, the links connecting the networks used links provided by the PTT; it is inherent as evidenced by the fact that one of

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ordinary skill in the art would have recognized that the connecting means used may easily be a SS7).

Regarding claims 9 and 24, Cowan et al. disclose the communications system, wherein the power supply network visitor location register is set up in such a way that it is able to communicate, by means of MAP messages, with other network units connected to the connecting network (page 13, lines 7-21; page 14, lines 1-10, it is inherent as evidenced by the fact that one of ordinary skill in the art would have recognized that, as the Global System for mobility (GSM) deployed throughout the world utilizes a protocol called GSM Mobile Application Part (MAP), the MAP messages are used for communication).

Regarding claims 10 and 25, Cowan et al. disclose the communications system, wherein the power supply network visitor location register comprises a gateway module, which gateway module is able to pass on calls from terminals to respective mobile devices, which calls have been passed on via the connecting network to the power supply network visitor location register, and which gateway module is able to pass on calls from respective mobile devices via the connecting network to a respective network unit, in particular a second power supply network visitor location register, for further transmission to a called terminal (page 13, lines 17-21; page 14, lines 1-21; page 15, lines 1-12, the system comprises gateways for network communication).

Regarding claims 11 and 26, Cowan et al. disclose the communications system, wherein the power supply network visitor location register comprises a gateway module, which gateway module is able to pass on calls from terminals to respective mobile

devices, which calls have been received from a mobile switching center and have been passed on to the power supply network visitor location register, and which gateway module is able to pass on to a respective mobile switching center calls from respective mobile devices for further transmission to a called terminal (page 13, lines 17-21; page 14, lines 1-21; page 15, lines 1-12, communication means throughout the MSCs and gateways is provided).

Regarding claims 12 and 27, Cowan et al. disclose the communications system, wherein the power supply network visitor location register comprises a billing module which is able to record and bill for services that have been carried out for a respective mobile device (page 7, lines 15-21; page 8, lines 1-5, the system holds the means to store services provided in order to charge a visiting subscriber).

Regarding claims 13 and 28, Cowan et al. disclose the communications system, wherein the billing module is able to bill recorded services to a respective mobile device directly via the low voltage grid (page 7, lines 15-21; page 8, lines 1-5, the system contains the means to charge a subscriber).

Regarding claims 14 and 29, Bullock et al. teach the communications system, wherein the interface module comprises an interface with contacts, a contactless infrared interface, a contactless inductive interface and/or a contactless high frequency radio interface (col. 3, lines 43-48).

Regarding claims 15 and 30, Bullock et al. teach the communications system, wherein the connecting modules comprise charging modules by means of which energy

storage devices for operation of the mobile devices are chargeable on the low voltage grid (col. 3, lines 32-36, other means of providing power are supported).

Regarding claim 31, Bullock et al. teach a connecting module for a communications system, which connecting module is set up in such a way that users of mobile devices are able to connect at least certain of the mobile devices to the low voltage grid in each case by means of the connecting module, the connecting module comprising a connecting plug for connection to the low voltage grid, by means of which connecting plug the connecting module is connectible to the low voltage grid via outlets of the low voltage grid, and the connecting module comprising an interface module for connection with a respective mobile device (col. 3, lines 9-43), and which connecting module comprises a suitable power line communications module, by means of which the respective mobile device is able to communicate via the low voltage grid with other units which are connected to the low voltage grid via a power line communications module (col. 3, lines 43-48).

Regarding claim 32, Cowan et al. disclose the connecting module, wherein it has stored address data by means of which it is addressable in the low voltage grid (page 7, lines 15-20; page 8, lines 1-20, many data related to VLR such the phone numbers of visiting mobile devices and locations of VLRs are comprised between this database and the HLR, which in turn allow roaming).

Regarding claim 33, Bullock et al. disclose the connecting module, wherein the interface module comprises an interface with contacts, a contactless infrared interface,

a contactless inductive interface and/or a contactless high frequency radio interface
(col. 3, lines 43-48).

Regarding claim 34, Cowan et al. disclose the connecting module, wherein it comprises a charging module by means of which an energy storage device for operation of a mobile device is chargeable on the low voltage grid (col. 3, lines 32-36, other means of providing power are supported).

Regarding claim 35, Cowan et al. disclose the connecting module, wherein the at least certain mobile devices each comprise a mobile radio telephone (page 4, lines 10-15, the system comprises mobile subscribers).

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the art with respect to communications method and systems and power line communications.

US Pat. No. 5940512 to Tomoike	Roaming method
US pat No. 5875400 to Madhavapeddy et al.	Cellular mobile communications system
US Pat No. 6256518 to Buhrmann	Providing power to a wireless system
US Pat. No. 6246868 to Bullock et al.	Conversion and distribution of incoming wireless telephone using power line

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio R Perez whose telephone number is (703) 305-8637. The examiner can normally be reached on Monday - Friday, 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika Gary can be reached on (703) 308-0123. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JP
4/26/04


ERIKA GARY
PATENT EXAMINER